

 Add the following new claim.

B7  
--11. (new) A driving belt according to claim 1, characterised in that edges of the transverse element (4) are rounded.--

REMARKS

The application has been amended so as to place it in condition for allowance at the time of the next Official Action.

Previously claims 1-10 were pending. This amendment cancels claims 3, 5, and 7. This amendment also adds new dependent claim 11 based on original dependent claim 9. Previously dependent claim 10 has been amended to be in independent form and recites an individual transverse element found in the driving belt recited by claim 1.

The Official Action objected to the drawings due to a feature recited in claim 7 not being shown. Responsively, claim 7 has been canceled.

The specification has been amended to add section headings and to make formal amendments noted by the Official Action.

The Official Action rejected claim 7 under §112, first paragraph. Claim 7 has been canceled. The Official Action rejected claims 2, 3, 5-7, and 9-10 under §112, second paragraph, as being indefinite.

These claims have been amended so as to remedy the stated basis of rejection. Accordingly, withdrawal of this rejection is solicited.

The Official Action rejected claims 1-4, 6, and 10 under §102 as being anticipated by TAKAGI (JP-1-247841).

The Official Action rejected claim 5 under §103 as obvious over the Japanese reference in view of MATSUDA et al. 5,169,369; and claims 8-9 as obvious over the Japanese reference in view of MARUYAMA (EP-421804).

Claim 1 has been amended so as to patentably recite the present invention. Support for the added features concerning the tilting line can be found at least in the specification, page 5, lines 29-31, and the drawing figures. Other of the new recitations were taken from originally-filed claim 5, now canceled.

As the Official Action acknowledged that the recitations of claim 5 were not anticipated by the Japanese reference and those recitations are now found in amended claim 1, the anticipation rejection as to amended claim 1 and the claims depending therefrom, should be withdrawn.

This would leave amended claim 1, at best, as being rejected under §103 as obvious over the Japanese reference in view of MASUDA et al.

The proposed combination suggested by the Official Action is not viable as such a combination would not in practice result in a functioning driving belt design.

The Japanese reference discloses a driving belt with transverse elements having a projection and a recess that are provided in a second part of the elements located between the first and second parts. This known design element differs from the present invention in that the projection and recess interlock to transmit a tensile or pulling force between the elements. Thus, the prior art projection and recess interlock adjacent elements in both directions perpendicular to the horizontal direction; that is, in the longitudinal (circumference) direction of the driving belt and in the height (radial) direction of the driving belt.

When two such adjacent elements mutually rotate, the natural hinging point (line) will be located at the underside of the projection where it is attached to the element's front surface. The Official Action acknowledges that the Japanese reference does not disclose a tilting line some distance below the projection. For this feature the Official Action offers MASUDA et al. for disclosing a projection disposed above a tilting line and concludes that it would have been obvious to modify the Japanese reference to so locate the tilting line relative to the projection.

Applicants respectfully disagree because the Japanese reference teaches transverse elements which mutually rotate, as noted above, in both directions perpendicular to the horizontal direction. Should a tilting line be defined on the front side some distance from the natural hinging point, this mutual

rotation would be hindered and the driving belt design thereby become non-functional.

Since the combination proposed by the Official Action would not be effective, the obviousness rejection is not viable. See *In re Vaeck*, 20 USPQ2d, 1438 (Fed. Cir. 1991) establishing that the teaching or suggestion to make the claimed combination and a reasonable expectation of success therein must be found in the prior art, and not be based on the present disclosure. Thus, the teachings of the applied references, in themselves and absent those of the present application, would not result in a successfully functioning belt design, and therefore there is no motivation to make the modifications to the Japanese reference in the manner suggested by the Official Action.

Accordingly, reconsideration and allowance of amended claim 1 are respectfully requested. The dependent claims are believed to be allowable at least for depending from an allowable independent claim.

The driving belt according to the present invention includes transverse elements having projections and recesses which are designed to mate rather than to actually interlock in the longitudinal direction. The inventive design allows the hinging line (tilting line 18) to be located away from the elements according to the invention so as to allow the transverse elements to interact wherein only a pushing force may be transmitted between the elements (no pulling force may be transmitted between the elements) and wherein a tilting line is

located at some distance from the projection and, further, the recess defines the center of rotation between adjacent elements.

In view of the above, applicants believe that the present application is in condition for allowance and an early indication of the same is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification, claims and abstract by the current amendment. The attached page is captioned "**Version with markings to show changes made.**"

Respectfully submitted,

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ABSTRACT OF THE DISCLOSURE

--A driving belt for use in a continuously variable transmission comprising two V-shaped pulleys, which driving belt comprises a carrier consisting of two endless band packages lying side by side, on which transverse elements are disposed. Each transverse element includes two recesses positioned opposite each other for receiving the band packages, wherein a part of the transverse element is positioned between the band packages. The front side of the transverse element includes a projection, which can mate with a recess in the adjacent transverse element. The projection and the recess are at least partially formed in the part of the transverse element.--

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Page 5, the fourth paragraph was amended as follows:

--Transverse element 4 consists of a first part 11, which extends under band packages 5, 6, a second part 12, which is located [under] between band packages 5, 6, and a third part 13, which extends above band packages 5, 6.--

Page 7, the first paragraph was amended as follows:

--Figure 5 is a detailed view of the shape of recess 7. Inside [surface] portion 21 includes a straight or slightly curved part at the location of first part 11 of transverse element 4, which part comes into contact with the band package 5. Said part merges with a convex portion thereof having a radius R2 into a concave portion of the inside surface having a radius R1 at the location where portion 21 of the inside surface merges with portion 22.--

IN THE CLAIMS:

The claims were amended as follows:

--1. (amended) A driving belt for use in a continuously variable transmission comprising two V-shaped pulleys (2, 3), which driving belt (1) comprises:

a carrier consisting of two endless band packages (5, 6) lying side by side, on which transverse elements (4) are

disposed, wherein each transverse element (4) includes two recesses (7, 8) positioned opposite each other for receiving the band packages (5, 6), so that a first part (11) of the transverse element (4) extends under said band packages (5, 6), a second part (12) of the transverse element (4) is positioned between said band packages (5, 6) and a third part (13) of the transverse element (4) extends above said band packages (5, 6), wherein the front side of the transverse element (4) includes a tilting line (18) extending in a horizontal direction and forming a transition between a part of the element at least including said third part (13) that has a substantially constant thickness as seen in side elevation and a further part of the element wherein said thickness tapers in downward direction away from the tilting line (18) and a projection (14) which can mate with a recess (15) in the adjacent transverse element (4), [characterised in that]

wherein said projection (14) extends in horizontal direction, and wherein the rear side of the transverse element includes a recess (15) which likewise extends in horizontal direction,

wherein said projection (14) and said recess (15) are at least partially formed in the second part of the transverse element (4) and,

wherein said projection (14) is disposed some distance above the tilting line (18), which distance is smaller than the smallest vertical dimension (A) of the recess (7, 8).--



--2. (amended) A driving belt according to claim 1, characterised in that said projection (14) and said recess (15) are [in large part present] entirely located in the second part (12) of the transverse element (4).--

--6. (twice amended) A driving belt according to claim 1, characterised in that [the] a surface of the projection (14) and of the recess (15) comprises parts (16, 17) which extend at an angle to a horizontal line in the plane in which the band packages (5, 6) lie[, and which extends perpendicularly to the direction of the driving belt (1)].--

--9. (twice amended) A driving belt according to claim 1, characterised in that edges of the transverse element (4) [have been] are deburred [and/or been rounded by means of a tumbling operation].--

--10. (amended) A transverse element for use in a driving belt, comprising: [for a continuously variable transmission comprising two V-shaped pulleys (2, 3), in particular as defined in any one of the preceding claims, which transverse element (4) includes]

two recesses (7, 8) positioned opposite each other for receiving [the] band packages (5, 6), so that a first part (11) of the transverse element (4) extends under said band packages (5, 6), a second part (12) of the transverse element (4) is

positioned between said band packages (5, 6) and a third part (13) of the transverse element (4) extends above said band packages (5, 6), wherein the front side of the transverse element (4) includes a tilting line (18) extending in a horizontal direction and forming a transition between a part of the element at least including said third part (13) that has a substantially constant thickness as seen in side elevation and a further part of the element wherein said thickness tapers in downward direction away from the tilting line (18) and a projection (14) which can mate with a recess (15) in the adjacent transverse element (4), [characterised in that]

wherein said projection (14) extends in horizontal direction, and wherein the rear side of the transverse element (4) includes a recess (15) which likewise extends in horizontal direction,

wherein said projection (14) and said recess (15) are at least partially formed in the second part of the transverse element (4) and,

wherein said projection (14) is disposed some distance above the tilting line (18), which distance is smaller than the smallest vertical dimension (A) of the recess (7, 8).--

IN THE ABSTRACT:

The Abstract of the Disclosure was amended as follows:

--A driving belt for use in a continuously variable transmission comprising two V-shaped pulleys, which driving belt

comprises a carrier consisting of two endless band packages lying side by side, on which transverse elements are disposed. Each transverse element includes two recesses positioned opposite each other for receiving the band packages, wherein a part of the transverse element is positioned between [said] the band packages. The front side of the transverse element includes a projection, which can mate with a recess in the adjacent transverse element. [Said] The projection and [said] the recess are at least partially formed in the [aforesaid] part of the transverse element.--